

PART II	DEPARTMENT OF HUMAN RESOURCES DEVELOPMENT	5.510
	STATE OF HAWAII	5.514
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	Minimum Qualification Specifications for the Classes:	5.524

MICROBIOLOGIST II, III, IV, V AND VI

**Basic Education Requirement**

Graduation from an accredited four (4) year college or university with a bachelor's degree in microbiology, bacteriology, biology, or chemistry which included a minimum of fifty (50) semester credit hours in the following areas:

1. At least thirty (30) semester credit hours in biological science. This coursework must have included at least twenty (20) semester credit hours in microbiology subjects such as:
  - a. Bacteriology, immunology, serology, mycology, parasitology, or virology;
  - b. Food, dairy, soil, industrial, public health, agriculture or applied bacteriology or microbiology; or
  - c. Genetics, physiology, metabolism, epidemiology, animal or plant physiology or pathology.

All of the above course work must be closely related to the study of microorganisms; and

2. At least twenty (20) semester credit hours in the physical and mathematical sciences which included coursework such as inorganic, qualitative, quantitative and organic chemistry, biochemistry, physics, college algebra, or statistics.

Excess work experience as described under the Specialized Experience, below, or any other responsible administrative, professional or analytical work experience that provided knowledge, skills and abilities comparable to those acquired in four (4) years of successful study while completing a college or university curriculum leading to a baccalaureate degree in the above majors with the coursework described above, may be substituted on a year-for-year basis. To be acceptable, the experience must have been of such scope, level and quality as to assure the possession of comparable knowledge, skills and abilities.

The education or experience background must also demonstrate the ability to write clear and comprehensive reports and other documents; read and interpret complex written material; and solve complex problems logically and systematically.

### **Experience Requirements**

Applicants must have progressively responsible work experience of the type and quality described in the statements below and in the amounts indicated in the following table, or any equivalent combination of training and experience:

Class Title	Specialized Experience (Years)	Supervisory Experience (Years)	Administrative Aptitude (Years)	Total Experience (Years)
Microbiologist II	0	0	0	0
Microbiologist III	1	0	0	1
Microbiologist IV	2	*	0	2
Microbiologist V	3	*	0	3
Microbiologist VI	3	1	**	4

**Specialized Experience:** Professional experience in the detection, isolation, identification, cultivation, use and/or control of microorganisms. Such experience may have been gained in such scientific disciplines as bacteriology, immunology, serology, mycology, parasitology, virology or other related areas of science.

For the III and IV levels, at least one (1) year of the required experience must have been comparable to the next lower level in the State service.

For the V level, at least one (1) year of the required experience must have been comparable to the IV level, or two (2) years of experience must have been comparable to the III level, in the State service.

For the VI level, at least one (1) year of the required experience must have been comparable to the V level, or two (2) years of experience must have been comparable to the IV level, in the State service.

Supervisory Experience: Experience in the field of microbiology which included: 1) planning, organizing, scheduling, and directing the work of others; 2) assigning and reviewing their work; 3) advising them on difficult work problems; 4) training and developing subordinates; and 5) evaluating their work performance.

\*For positions at the IV and V levels that supervise, applicants must possess supervisory aptitude. Supervisory aptitude is the demonstration of aptitude or potential for the performance of supervisory duties through successful completion of regular or special assignments which involve some supervisory responsibilities or aspects of supervision, e.g., by serving as a group or team leader; or in similar work in which opportunities for demonstrating supervisory capabilities exist; or by the completion of training courses in supervision accompanied by application of supervisory skills in work assignments; and/or by favorable appraisals by a supervisor indicating the possession of supervisory potential.

Administrative Aptitude: \*\* For VI level, applicants must possess administrative aptitude. Administrative aptitude will be considered to have been met when there is strong affirmative evidence of the necessary administrative aptitudes and abilities. Such evidence may be in the form of success in regular or special assignments or projects which involved administrative problems (e.g., in planning, organizing, promoting, and directing a program, including policy and budgetary considerations; and/or providing staff advice and assistance in such matters); interest in administration demonstrated by the performance of work assignments in a manner which clearly indicates awareness of administrative problems and the ability to solve them; completion of educational or training courses in the area of administration accompanied by the application of the principles, which were learned, to work assignments; management's observation and evaluation of the applicant's leadership and administrative capabilities; success in trial assignments to managerial and/or administrative tasks.

### **Substitutions Allowed**

1. A master's degree from an accredited college or university in microbiology, or a closely related science major that is directly related to the study of microorganisms may be substituted for one (1) year of the Specialized Experience.
2. A Ph.D. degree from an accredited college or university in microbiology or a closely related science major that is directly related to the study of microorganisms may be substituted for two (2) years of the Specialized Experience.

### **Quality of Experience**

Possession of the required number of years of experience will not in itself be accepted as proof of qualification for a position. The applicant's overall experience must have been of such scope and level of responsibility as to conclusively demonstrate that he/she has the ability to perform the duties of the position for which he/she is being considered.

### **Selective Certification**

Specialized knowledge, skills and abilities may be required to perform the duties of some positions. For such positions, Selective Certification Requirements may be established and certification may be restricted to eligibles who possess the pertinent experience and/or training required to perform the duties of the position.

Agencies requesting selective certification must show the connection between the kind of training and/or experience on which they wish to base selective certification and the duties of the position to be filled.

### **Tests**

Applicants may be required to qualify on an appropriate examination.

### **Physical and Medical Requirements**

Applicants must be able to perform the essential functions of the position effectively and safely, with or without reasonable accommodation.

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This is an amendment to the minimum qualification specifications for the classes MICROBIOLOGIST II, III, IV, V and VI, which were approved on February 10, 1997.

DATE APPROVED: 3/12/2012

  
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